

14 pusher in a fixed position until said proximal portion of
15 said stent or prosthesis is deployed from said first
16 introducer into said blood vessel;

17 (c) withdrawing said outer sheath and said
18 proximal portion pusher while maintaining said distal
19 portion pusher in a fixed position until said first
20 distal portion of said stent or prosthesis is deployed
21 from said first introducer at least partially into said
22 first branched vessel; and

23 (d) withdrawing said first introducer from the
24 vasculature.

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C' 1 55. (Newly added) A method of treating an
2 angeological disease at a bifurcation site where a blood
3 vessel branches into a first branched vessel and a second
4 branched vessel comprising the steps of:

5 (a) disposing in said blood vessel a proximal
6 portion of an endoluminal stent;

7 (b) directing blood flow from said blood
8 vessel into said first branched vessel through a first
9 distal portion of said endoluminal stent, said first
10 distal portion being connected to said proximal portion
11 and extending into said first branched vessel; and

12 (c) directing blood flow from said blood
13 vessel into said second branched vessel through a second
14 distal portion of said endoluminal stent, said second

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cancel.

15 distal portion being connected to said proximal portion
16 and extending into said second branched vessel,

17 wherein said stent portions are substantially
18 completely covered by a biocompatible fabric graft.

1 56. (Newly added) An endoluminal stent
2 comprising a plurality of hoops which are axially
3 displaced in a tubular configuration along a common axis,
4 each of said hoops

5 (a) being formed by a substantially complete
6 turn of a sinuous wire having apices, and

7 (b) having a circumference that lies in a plane
8 substantially perpendicular to the longitudinal axis of
9 said stent;

10 wherein apices of adjacent hoops are juxtaposed
11 to one another, and at least two juxtaposed apices are
12 connected by a securing means.

1 57. (Newly added) A method of making an
2 endoluminal stent having a plurality of hoops which are
3 axially displaced in a tubular configuration, each of
4 said hoops being formed by a substantially complete turn
5 of a sinuous wire with apices and having a circumference
6 that lies in a plane substantially perpendicular to the
7 longitudinal axis of the stent, said method comprising
8 the steps of:

9 (a) winding a wire in a zig-zag pattern around
10 a mandrel having a plurality of upstanding pins defining
11 said zig-zag pattern to form a first hoop having apices

12 and a circumference that lies in a plane substantially
13 perpendicular to the longitudinal axis of said mandrel;

14 (b) longitudinally displacing said wire with
15 respect to the axis of said mandrel;

16 (c) winding said wire in a zig-zag pattern
17 around a plurality of upstanding pins on said mandrel to
18 form a second hoop, adjacent said first hoop, having
19 apices juxtaposed to the apices of said first
20 circumferential hoop and a circumference that lies in a
21 plane substantially perpendicular to the longitudinal
22 axis of said mandrel;

23 (d) longitudinally displacing said wire with
24 respect to the axis of said mandrel;

25 (e) repeating steps (a)-(d) to form additional
26 hoops until a predetermined number of hoops are formed;

27 (f) annealing said wire on said mandrel;

28 (g) cooling said wire on said mandrel;

29 (h) removing said wire from said mandrel; and

30 (i) securing together at least two juxtaposed
31 apices of adjacent hoops.

1 58. (Newly added) Apparatus for delivering an
2 endoluminal stent or prosthesis into the vasculature
3 comprising:

4 (a) an introducer having a first portion of a
5 lock fitting on a distal end thereof; and

6 (b) a cartridge having an inner tubular member
7 containing said stent or prosthesis in a compressed
8 state, an outer sheath, and a second portion of said lock
9 fitting;

10 wherein said first portion of said lock fitting
11 on said introducer mates with said second portion of said
12 lock fitting on said cartridge to prevent relative
13 movement of said introducer and said cartridge.

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1 ~~59. (Newly added) A bifurcated stent for use~~
2 ~~in juxtaposition with an angiological bifurcation of a~~
3 ~~blood vessel into two branched vessels comprising a~~
4 ~~proximal stent portion adapted to be disposed within said~~
5 ~~blood vessel in juxtaposition with said bifurcation, a~~
6 ~~distal stent portion adapted to extend across the~~
7 ~~bifurcation into one of the branched vessels, and a~~
8 ~~distal stent segment joined to said proximal portion and~~
9 ~~adapted to allow blood to flow from the proximal portion~~
10 ~~into the other branched vessel.~~

1 60. (Newly added) A stent joining means for
2 joining two endoluminal stents one to the other to define
3 a continuous lumen through the two stents, said stent
4 joining means comprising:

5 a first stent including a male engaging portion
6 which can be compressed radially inwardly; and

7 a second stent including female cooperating
8 portions;

9 wherein the male engaging portion can be
10 entered into the female cooperating portion in a radially

11 compressed state and thereafter caused or allowed to
12 expand in the female cooperating portion; the arrangement
13 being such that in service the inter-engagement of the
14 male engaging portion and the female cooperating portion
15 so as the resist longitudinal separation of the two
16 stents one from the other.

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2 61. (Newly added) A method of joining a first
3 endoluminal stent with a second endoluminal stent within
4 the vasculature of a body comprising the steps of
5 inserting an end of said first stent at least partially
6 into an end of said second stent, and allowing said end
7 of said first stent to expand and contact said end of
8 said second stent.

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